Infectious Diseases Fellow Consultation

[redacted]

Date of Consult: Mar 23, 2009
Date of Admission: Mar 21, 2009

[redacted]

Consulted for: Necrotizing granulomas in L scapula pathology

CC/HPI:

48 yo R-handed otherwise well male presents with L shoulder pain, progressively worsening since 1/09. Recently discharged on 3/12 after L scapula excisional biopsy, now admitted w/general malaise on 3/21. Please see prior ID consultation and [redacted] recent H&P for full details of initial presentation and history.

At the time of his most recent d/c on 3/12, pt was feeling well after the excision of the L scapular lesion. Infectious diseases was asked to see the patient at the time given frozen report from a scapular biopsy of necrotizing granulomas. Etiology was unclear at that time, but multiple possibilities were considered. The absence of symptoms, the normal chest x-ray, the absence of significant lymphadenopathy, and the involvement of a scapular lesion and a femur made the majority of infectious pathogens unlikely. Pt was d/c without antibiotics and to f/u as necessary. Several days after d/c, his shoulder pain worsened and he went to see [redacted] A scapula Xray on 3/17 was done, which reported a lytic lesion affecting left scapular spine with associated fracture. Final path from the biopsy was reported on 3/17, which shows necrotizing granulomas with extensive polymorphonuclear cell infiltration. Special stains for organisms were negative. The pathology is not consistent with sarcoid and is most consistent with an acute and chronic osteomyelitis with histiocytic infiltration with a propensity towards granuloma formation. Of note, Gram stain mycobacterial and fungal stains were all negative. In microbiology (and corresponding stains were negative in pathology) and routine culture, aerobic and anaerobic, fungal cultures and mycobacterial cultures are negative for no growth to date.

Presently, pt admitted on 3/21 w/ referral to MGH ER from our team. He was reporting worsening malaise, sweats and anxiety. Denies CP/SOB/cough/rhinorrhea. Denies N/V/D. He has been afebrile throughout this admission. R femur lesion continues to be asymptomatic. During this admission, pt has received a CT chest/abdo/pelvis, reporting nodules in a random distribution most <2mm, all <4mm and small cystic lucencies throughout both lung fields. Lymph nodes in bilat axilla (largest in R at 1.2cm) and abdo (largest L at 1.7cm). A thyroid 1.2 cm nodule was also commented upon. Extensive w/u has been sent and all has been negative at this time (see below for detailed list). He was started on IV Vanco and PO doxycycline on 3/21. We are now asked for recommendations regarding further work up and management of [redacted] constellation of symptoms, pathology and imaging findings.

ROS:
Pertinent positives and negatives as above, otherwise all systems reviewed and negative in detail.

PAST MEDICAL HISTORY/ PAST SURGICAL HISTORY:

1. Bipolar-affective d/o

2. Appendectomy 1985
3. Borderline HTN

ALLERGIES: Tetracycline – nausea

MEDICATIONS:
Outpatient meds:
Lamictal 200mg po daily
Lithium 100mg po bid
Percocet i-ii tab q4-6h prn (Pt reports taking ii tabs 6times daily since 1/09)
Protonix daily

Inpatient meds:
Anbx: vancomycin 1 gm q12, doxycycline 100 mg PO q12
Lamictal, Lithium, Dilaudid, Omeprazole, Colace, Nicotine patch

FH: Mom- Paget's disease
Dad- Paget's disease, died with colon ca with lung mets at age 68
Older bro- DM, no other sibs
No known history of alpha-1 antitrypsin in family.

SOCIAL HISTORY
Occupation: Lawyer. Lives with and cares for his mother. Divorced.
Habits: Smoker 1.5packs/day for past 3 yrs, cigars previously. Denies alcohol or recreational drug use.
Travel: Ascencion Paraguay 1993, Moscow Russia 1999 [redacted]
Pets: None. No rodent/farm/animal exposure recently.

PHYSICAL EXAM:
VS: 97 HR 83 129/93 RR18 97%RA
Gen: healthy appearing, NAD
HEENT: PERRL, EOMI, OP without lesions
Neck: supple, no cervical LAN
Pulm: CTA bilaterally, no rales/wheezes
CV: RRR, no M/G/R, normal S1/S2
Abd: soft, NT, ND, NABS, no HSM
Ext: L scapula stitches in place- mild erythema surrounding incision, incision is clean and dry, nicotine patch on inferior L scapula, unable to fully exam ROM as told to minimize movement in L shoulder 2/2 fracture
Skin: no rash
Neuro: CN II-XII grossly intact, 5/5 strength in all extremities, normal sensation to light touch in all ext
T/L/D: nil

LABORATORY:
WBC 16.9 Hgb 15.4 Hct 42.4 PLT 299
143/4.1/105/27.9/10/0.98 Gluc 86
LFTs normal Urinalysis Ket 1+ Prot Trace
IgG, IgA normal
IgM 49 (N 53-334)
Urine Bence-Jones protein, SPEP normal
CRP 19
ACE 18

MICRO:

Date	Culture Source	Organism	Susceptibilities
3/11/09	L scapula excision	No growth, rare polys, few monocyte, ANCA negative, warthin- starry neg	
3/21-22	BCx	No growth	
3/21-23	Sputum	No growth, Resp panel negative	

Pending serology: RPR, Cryptococcal Ag, Meliodosis, Fungal serology, quantiferon TB gold, HIV ELISA
Negative serology: Q fever Phase I and II IgG and IgM, B henselae Ab, B Quintana Ab, Urine histoplasma Ag

RADIOLOGY:
CT Chest/Abdo/Pelvis w/ contrast 3/21: Scattered nodules throughout the lungs with cystic lucencies,lytic lesion in the left scapula, and scattered lymphadenopathy. Constellation of findings are non-specific, but could be seen in eosinophilic granuloma, or other granulomatous disease such as sarcoid. Tuberculosis cannot be excluded in the correct clinical setting, however, is less likely. Infectious etiology such as septic emboli would also be possible.

PATHOLOGY:
L scapula excision 3/12: ACUTE OSTEOMYELITIS WITH NECROSIS AND GRANULOMAS

IMPRESSION & PLAN:
This 48yo returns with general malaise, now requiring admission for workup of his lesion and IV antibiotics. Cultures from his blood, lesion, sputum and serology have all been negative to date. Given that the pt returns to hospital feeling systemically ill with a mild leukocytosis, it is reasonable to treat his for culture-negative granulomatous disease. Furthermore, given that Staph/Strep are not c/w his clinical findings, we would favor d/c vancomycin at this time. We have ordered serologic tests to try and determine if a specific infectious etiology explains his L scapula lesion and potentially his lung findings.

Considering non-infectious etiologies, we would like him to receive an endocrine consult for possible relationship between a thyroid nodule and bony lesions. Furthermore, a bronchoscopic biopsy would be ideal to obtain a frozen tissue sample for PCT and to further assess for sarcoid and eosinophilic granulomatosis. A TTE is desired to r/o septic emboli raised as a possibility on CT chest nodules. If infectious and non-infectious w/u continue to be unremarkable, may consider TRAPS, although this is rare and pt does not have the classic features of fever, conjunctivitis or rash.

Suggestions:
1. D/C Vanco - Staph/Strep infection unlikely given negative cultures
2. Ceftriaxone IV 2 q24h, Gentamicin IV 70 q12h, Doxycycline PO 100 bid for culture-negative granuloma
3. Gentamicin peak and trough monitoring (goal peak 3-4, trough <1)
4. CBC with manual differential
5. Endocrine consult – Etiology of thyroid nodule, is there a relationship between this and bony lesions
6. Pulmonary consult – Would prefer transbronchial biopsy to obtain frozen tissue for PCR testing, and to r/o sarcoidosis and eosinophilic granulomatosis

7. TTE
8. Brucella serologies
9. F/U pending serology: RPR, Cryptococcal Ag, Meliodosis, Fungal serology, quantiferon TB gold, HIV ELISA
10. Alpha-1 antitrypsin serum level – given cystic lesions on CT chest
11. Discontinue airborne precautions
12. beta-D-glucan
13. TRAPS gene testing
14. We will ask pathology for histiocytosis evaluation
15. May need bone marrow bx if above w/u negative (test for infections, neoplasm)
16. Hold BCx for fastidious organisms
17. Hemoglobin electropheresis